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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|------------------------|------------------|
| 09/965,565 | 09/27/2001 | Yoshiyuki Nakamura | 14945 | 3054 |
| 23389 | 7590 | 09/21/2004 | EXAMINER | |
| SCULLY SCOTT MURPHY & PRESSER, PC 400 GARDEN CITY PLAZA GARDEN CITY, NY 11530 | | | TU, CHRISTINE TRINH LE | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2133 | |

DATE MAILED: 09/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 09/965,565 | Applicant(s) NAKAMURA, YOSHIYUKI | |
| | Examiner Christine T. Tu | Art Unit 2133 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 1-4 and 7-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 5 and 6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) <i>f</i> | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>9/27/2001</u> . <i>g</i> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's election of Group II (claims 5 and 6) in the reply filed on June 18, 2004 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).
2. In order to expedite the prosecution for the subject application, the non-elected claims should be canceled in response to this office action.

Claim Rejections - 35 USC § 112

3. Claims 5 and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 5 and 6:

At lines 4-5, the use of parenthesis “ (.....)” should be avoided because it is not clear whether or not the phrase “i being an natural number not more than n” is actually being recited.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawai et al. (4,953,128 and Kawai hereinafter).

Claim 5:

Kawai discloses the invention substantially as claimed. Kawai shows (figure 4) a coincidence detecting circuit (3) comprising XOR gates (XOR1 – XORm) and a NOR gate. Each of the XOR gates has two inputs and one output. The NOR gate receives outputs of the XOR1 – XORm gates as inputs for generating an output (RS) signal (figure 4, column 4 lines 28-40)

Kawai does not explicitly teach the OR gate. However, it would have been obvious to one skilled in the art to realize that Kawai's NOR gate [in the coincidence detecting circuit (3)] would have been replaced with an OR gate. One having ordinary skill in the art would be motivated to implement such a replacement because using a NOR gate or an OR gate would depend on the necessity of an inversion on the output of such a gate.

Claim 6:

Kawai discloses the invention substantially as claimed. Kawai shows (figure 4) a coincidence detecting circuit (3) comprising XOR gates (XOR1 – XORm) and a NOR gate. Each of the XOR gates has two inputs and one output. The NOR gate receives outputs of the XOR1 – XORm gates as inputs for generating an output (RS) signal

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(figure 4, column 4 lines 28-40). Kawai also teaches that the XOR gates and the NOR gate may be replaced with X-NOR gates and an AND gate (column 5 lines 33-39).

Kawai does not explicitly teach using XOR gates when the detecting circuit (3) is operative with an AND gate. However, it would have been obvious to one skilled in the art to realize that Kawai's X-NOR gates [when the coincidence detecting circuit (3) is operative with AND gate] would have been replaced with XOR gates. One having ordinary skill in the art would be motivated to implement such a replacement because using a X-NOR gate or an XOR gate would depend on the necessity of an inversion on the output of such a gate.

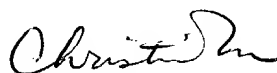
6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christine T. Tu whose telephone number is (703) 305-9689. The examiner can normally be reached on Mon-Thur. 8:30am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert DeCady can be reached on (703) 305-9595. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Christine T. Tu
Primary Examiner
Art Unit 2133

September 17, 2004